

Pregnancy After Spinal Cord Injury

Author: [Hannah Goodings](#) | Reviewer: [Frédérique Courtois](#) | Published: 12 September 2023 | Updated: ~

Key points

- Women with spinal cord injuries (SCI) can have successful, safe, pregnancies.
- Along with the many changes that able-bodied pregnant women experience, there are unique risks for women with SCI during pregnancy, delivery and postpartum periods.
- Having regular communications with a team of medical professionals before, during and after pregnancy can help ensure a safe pregnancy for the mother and the child.

Can I get pregnant after SCI?

Yes. Female fertility is often unaffected after SCI meaning that women with SCI are able to have successful pregnancies. During the initial phase of recovery, the majority of women experience a menstruation pause lasting 5-12 months. Once menstruation resumes, the women's ability to undergo pregnancy returns to normal.

Refer to SCIRE Professional's module on [Sexual and Reproductive Health](#) for more information!



What should I know before pregnancy?

It is recommended that women with SCI attend a consultation prior to pregnancy to discuss the unique risks involved when pregnant with SCI. This conversation and continued appointments with health care professionals during pregnancy can help ensure a safe pregnancy, delivery and postpartum period. Common preconception medical team members may include:

Obstetrician

A skilled medical professional who specializes in pregnancy and births. Finding an obstetrician with SCI expertise can be greatly beneficial as they may have adapted medical equipment and experience detecting specific SCI pregnancy risks and warning signs.

Midwife

A health professional who often works with women pre-conception, during pregnancy, during delivery and after birth, often in collaboration with other hospital medical staff. It should be noted that the role of midwives varies around the globe.



Obstetric anesthesiologist

A trained anesthesiologist who specializes in epidurals during delivery. An epidural is frequently used for pain reduction but in SCI populations can also reduce the risk of autonomic dysreflexia occurring during birth. For this reason, an obstetric anesthesiologist with SCI expertise is beneficial.

Spinal nurse

A nurse that specializes in SCI care, both acutely and long-term.

Physical/Occupational Therapist

Therapists who create mobility programs and adjusted techniques of completing activities of daily living and exercises in a safe manner.

Meeting with multiple practitioners can be time consuming. Finding a team with strong communication between health care providers can ease some of this.

What are the potential risks during pregnancy?

Women with SCI are able to have healthy pregnancies and births. However, these pregnancies are often considered high risk due to the added SCI related risks during pregnancy. These include:

Bladder and Bowel

Urinary Tract Infections (UTI)



UTIs are a common issue after SCI and may require antibiotic treatment. Pregnancy can reduce your mobility and put more pressure on your bladder, increasing the risk of incontinence and put you at higher risk of developing a UTI. Some women may choose to use an intermittent or indwelling catheter for all or the later portion of pregnancy to help with incontinence issues. Catheters can be useful for greater bladder control, but they also pose a risk for infection. Proper catheter hygiene and monitoring of symptoms is important to catch UTIs early.

Kidney Stones

Individuals with SCI are at higher risk of developing kidney stones due to incomplete bladder emptying, use of catheters, or neurogenic bladder conditions. During pregnancy, this risk increases due to decreased mobility and the potential for increased incontinence. If you experience fever, frequent UTI symptoms, or pain (though not all individuals with SCI will experience pain) consult your health care provider to determine the best course of action.

Autonomic Dysreflexia



Autonomic dysreflexia (AD) can be triggered by a full bladder or constipation. During pregnancy, the risk for bladder incontinence and constipation increases. This risk can be reduced with a schedule and tracking system for urinary and bowel movements. Speaking to a registered dietitian to adjust fiber intake or begin laxatives may also be helpful to decrease constipation risk.

Refer to our articles on [Bladder Changes](#), [UTIs](#), and [Autonomic Dysreflexia](#) for more information!



Spasticity

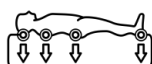


For some individuals, spasticity worsens during pregnancy. Medication use during pregnancy, particularly spasticity-reducing medication, should be discussed with a physician to keep both the mother and child safe.



Some common medications, taken by individuals with SCI (for pain, spasticity etc.) may negatively affect the baby if taken during pregnancy. **Consulting your family doctor to discuss medication options is crucial.**

Pressure Injuries



Reduced mobility and increased weight gain during pregnancy both play a role in the increased likelihood of pressure injuries developing. Regular pressure adjustments, skin assessments and chair fittings, completed by a seating specialist, should be done to avoid pressure injury complications during the pregnancy.

Refer to our articles on [Spasticity](#) and [Pressure Sores](#) for more information!



Mobility and Fatigue



Weight gain, increased abdominal pressure and increased spasticity during pregnancy can lead to decreased mobility and fatigue. Sleep quality is also commonly impacted by pregnancy and can worsen existing fatigue. This may result in needing help completing tasks that you have been independent in before pregnancy. It is important to pay attention to tasks you may need help with during pregnancy to ensure you have the correct supports in place.

Breathing



In women with higher SCIs, breathing issues may be present or worsen during pregnancy. Raising the upper body on pillows when lying down can help with breathing but regular checks should be done to prevent pressure sores or skin shearing in this position. Those with tetraplegia may be at increased risk of pneumonia. For those with a weak cough, there is an increased risk of aspiration if experiencing vomiting from morning sickness that may be reduced by side lying. Speaking to a physiotherapist about breathing exercises or modifications to assisted coughing may also be helpful to improve breathing.

Fetus Position



Fetal malpresentation, a condition where the fetus is not properly positioned, is more common in women with SCI due to decreased muscle tone within the abdominal wall. Routine ultrasounds should be conducted during pregnancy to check the fetus' positioning to create a safe birth plan.

Pregnancy alters and stresses many systems in the body for both able-bodied women and women with SCI. Women with SCI have higher risks with the complications listed above and may need additional support to ensure healthy pregnancies. However, with the proper medical support, a successful and safe pregnancy can be achieved.

What should I expect during childbirth?

Having regular appointments and good communication within your medical team are both key to developing a safe and successful birth plan. During delivery, some SCI specific complications to be aware of include:

Being unaware that labour has begun



Depending on the level of injury, contractions or fetal movements may not be felt by the mother. This has the potential to lead to an unexpected birth, which can be dangerous to both the newborn and the mother. To avoid this, regular cervical dilation checks should be completed from week 28 onward. For women with injury levels above T10, early hospitalization after week 36 may be recommended.

Autonomic dysreflexia

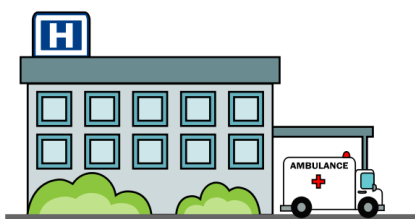


Autonomic dysreflexia (AD) is a risk throughout all the stages of pregnancy, but the risk is even more elevated during the time of labour and delivery. Some stimuli that may lead to AD include contractions and manipulation of the uterus, bladder or vagina, all involved in childbirth. AD leads to a sharp rise in blood pressure with symptoms such as a throbbing headache, red skin, nausea, and can be life threatening. The treatment for AD occurring during birth is to stop all manipulation and position the mother in an upright position. If AD cannot be controlled during birth, a caesarean section may be required to safely deliver the baby.

Should I get an epidural?

An epidural can reduce pain during delivery for some and it is also a valuable tool used to decrease the risk of AD. Because of its utility in decreasing the risk of AD, epidural injection may be recommended regardless of the mother's ability to feel birthing pains. In particular, it is recommended that women with SCI above T6 should have an epidural catheter placed at T10. In some cases, an epidural may be difficult if the mother has had lumbar or thoracic spinal surgery in the past. If an epidural cannot be completed, a local anesthetic may be used before any birthing surgeries such as an episiotomy.

Do I have to give birth at a large hospital?



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With every pregnancy being unique, the decision of where to give birth requires a discussion with your medical team. If the mother's injury level is below T6, safe delivery at a local hospital rather than traveling to a large centre may be possible if all those involved are properly trained on the specific risks associated with SCI during childbirth. This decision should be made with the medical team and mother to ensure a safe delivery.

Do I need a caesarean section?

In the past, women with SCI have often been advised that a caesarean section (C-section) is the safest option for childbirth. In some cases, where fetal positioning is incorrect or due to other complications, a C-section may be needed. However, in other cases, vaginal births can be safely completed in women with SCI. The discussion of vaginal or caesarean birth should be a conversation involving the mother and her medical team in order to best achieve a safe and successful birth.

What should I expect after my pregnancy?

After giving birth, most women with SCI have longer stays in hospitals compared to able-bodied women. This allows for continued care of bladder emptying, birthing wounds and monitoring. After discharge from the hospital, some complications that you may face as a mother with SCI include:

Wound Healing

Due to decreased or complete lack of sensation, birthing wounds for SCI patients must be carefully inspected often to ensure they are healing properly. Women may stay in the hospital to get the care needed or they may head home if wound care can be safely continued there. Daily wound cleaning should be completed until healing is complete. If possible, visits from a midwife or nurse may be beneficial during this time.

Breastfeeding

Mothers with SCI often have the ability to breastfeed normally. However, you may face some complications depending on your level of injury. Women with:

- injuries above T6 tend to have reduced milk production,
- injuries above T4 can experience trouble releasing milk due to reduced sensation of the baby latching onto the breast,
- any level of injury may have trouble positioning the baby or holding the baby for the entirety of feeding times. In these cases, breastfeeding pillows or laying down while feeding may be a good option.

If it is determined that the baby is not getting enough to eat through breastfeeding alone, supplemental formula may be advised.



Watch SCIRE's [YouTube video series on Breastfeeding](#) for more information.¹²

Refer to our article on [Breastfeeding](#) for more information!



Mental Health



Following delivery, many women, both able-bodied and disabled, deal with mental health changes and some develop postpartum depression or anxiety. Individuals living with SCIs are at a higher risk of depression, leading to a higher rate of postpartum depression and anxiety.

Postpartum Depression

Postpartum depression can be described by a major episode of depression occurring within 12 months of giving birth. Following delivery, many women experience postpartum blues, associated with mood swings during the first 4-10 days. An important difference is that postpartum depression greatly affects functioning of daily living and postpartum blues does not.

Refer to our article on [Depression](#) for more information!



Postpartum Anxiety

Postpartum anxiety is a major episode of anxiety during the months following giving birth and is also thought to be a more common risk in SCI populations.

Both postpartum depression and postpartum anxiety can have negative effects on the mother, child and supporting family if not treated. If you know someone suffering from either of these conditions, encouraging them to seek help from a medical professional as soon as possible is crucial.

The bottom line

There are increased or unique pregnancy-related considerations for women with SCI such as pressure sores, mobility and fatigue issues, autonomic dysreflexia during childbirth, and issues around wound healing. However, women with SCI can have healthy pregnancies, deliveries and motherhoods, helped along with their medical team.

For a list of included studies, please see the [Reference List](#). For a review of what we mean by “strong”, “moderate”, and “weak” evidence, refer to the [SCIRE Community Evidence Ratings](#).

Related resources

SCIRE Community. Sexual Health After SCI. Available from: community.scireproject.com/topic/sexual-health/
 SCIRE Community. Urinary Tract Infections. Available from: community.scireproject.com/topic/urinary-tract-infections/
 SCIRE Community. Breastfeeding. Available from: community.scireproject.com/videos/breastfeeding/
 SCIRE Professional. Sexual Reproductive Health: scireproject.com/evidence/sexual-and-reproductive-health/introduction/
 SCIRE Community. Autonomic Dysreflexia. Available from: community.scireproject.com/topic/autonomic-dysreflexia/
 SCI BC. Breastfeeding After SCI. Available from: <https://sci-bc.ca/breastfeeding-after-sci/>
 SCI BC. Female Fertility and Pregnancy. Available from: <https://scisexualhealth.ca/female-fertility-and-pregnancy/>

Abbreviated reference list

Full reference list available from: community.scireproject.com/topic/pregnancy/#references
 Glossary terms available from: community.scireproject.com/topics/glossary/

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