

Pregnancy after Spinal Cord Injury For Healthcare Providers

This information is not intended to replace a consultation with a medical provider

It is absolutely still possible for a woman to become pregnant after a spinal cord injury.

- 50% of women miss at least one period following their injury
- Usually, normal menses resume within 3-6 months
- After this time fertility rates are similar to the non-injured population of women

While it doesn't occur with every pregnancy, there is an increased risk of having smaller (low-birthweight) babies, early (pre-term) labor, and a higher rate of c-section births as opposed to the non-SCI population. Ideally, a vaginal birth is recommended. There are times when a spinal cord injury occurred at a young age, and the woman's pelvis may not have developed normally and is not large enough for the baby's head to fit through (cephalopelvic disproportion). Other times women sustain pelvic injuries at the time of their accident that may also affect the pelvis and the ability of the baby to pass through into the birth canal. In these cases, clinical pelvimetry can be performed by the OB/GYN and if the pelvis is not large enough a c-section will generally be scheduled for 39 weeks.

Try to prepare!

- When possible, try to plan for pregnancy
- Interview OB/GYNs and discuss their familiarity and experience with birth in spinal cord injury
- Discuss medications and which medications are safe to continue and which should be discontinued prior to pregnancy
 - Specific medications to be sure to discuss include: Antispasmodics (baclofen, tizanidine, dantrium, valium), Neuropathic pain medications (Neurontin, Lyrica), Musculoskeletal pain medications (opiates, ibuprofen), and bladder spasm medications (Ditropan, Detrol, Vesicare, Enablex)
- Have labs evaluated and discuss recommended vitamins and supplements with your OB/GYN prior to pregnancy
- A prenatal vitamin will most likely be recommended, which includes vitamin D, calcium and folate

Women with spinal cord injuries do have an increased risk of certain complications during pregnancy and birth:

- **Pressure ulcer development**
 - There is an increased risk of developing pressure ulcers (skin wounds) due to increased weight, a change in the pelvis where it widens to accommodate the baby's growing size, and more difficulty doing weight shifts because of the weight and position of the baby in the abdomen.
 - Talk with a seating therapist about modifications of seating position, cushion or wheelchair as needed
- **Anemia**
- **Constipation**
- **Urinary Tract Infections**
 - A UTI can trigger premature labor if not treated or managed correctly
 - Preventing UTIs is important
 - Avoid beverages with sugar or caffeine
 - They may need to catheterize more often
 - Hydration is important

- Educate them to contact their obstetrician immediately if they experience UTI symptoms, such as: fever, nausea, headache, chills, changes in spasticity, autonomic dysreflexia, unusual pain or burning
- **Gestational Diabetes**
- **Increased risk of DVTs (blood clots)**
 - As the baby gets larger more pressure is put on the large vessels of the upper thigh from the belly which can cause some compression of these vessels and increases the risk of blood clots.
- **Difficulty with daily cares and mobility**
 - Mobility is limited (more than just the spinal cord injury) in 4.5% of pregnant women with SCI. This will, of course, become more difficult as the baby's size increases
 - Some women may consider temporary power wheelchair rental for the last stage of pregnancy and after delivery to make mobility easier while carrying the baby

Women with injuries above T6, also have an increased risk for:

- **Autonomic Dysreflexia** (particularly during birth/labor)
 - Pre-eclampsia (or pregnancy-induced hypertension) can have symptoms that are similar to autonomic dysreflexia
- **Increased spasticity**
- **Bradycardia (slow heartrate)**
- **Hypotension (low blood pressure)**
- **Difficulty Breathing**
 - Especially in injuries above T4, the muscles that help in breathing may be partially affected or completely paralyzed. Breathing can become more difficult as the baby gets larger
 - Baseline respiratory function should be evaluated, if possible, before pregnancy in these women
 - In very rare cases, if breathing becomes significantly affected, respiratory therapies, CPAP/BIPAP, or mechanical ventilation may be necessary.

Labor

- Women with injuries **below T10** will likely have painful contractions
- Women with injuries **above T10** may “feel” that they are in labor by sympathetic nervous symptoms such as Autonomic dysreflexia, scalp tingling, and increased spasticity
- Insertion of an indwelling urethral catheter (if not already used) is recommended early in labor
- Early epidural analgesia (pain control) is recommended in spinal cord injuries above T7 as soon as labor begins even before the rupture of membranes to control autonomic dysreflexia
 - Generally, an epidural block height of T8-10 is adequate to control these symptoms
- Below T6, an epidural is optional for pain control, but may be difficult to insert if the woman has had previous lower thoracic or lumbar spine fusion
- Spasms may complicate the delivery process in the second stage of labor
 - Usually positioning changes are used to try to manage the spasticity
- There are higher rates of vacuum and forceps assisted deliveries in SCI
 - Sometimes this is done to speed up the birthing process because of autonomic dysreflexia symptoms or difficulty with birth due to not having volitional muscle control and assistance
- Even in women with a suprapubic catheter a c-section can still be performed safely with a low transverse incision

Lactation

- Women with spinal cord injuries may have more difficulty with lactation
- It is possible that women with tetraplegia (high thoracic or cervical injuries) may not get the “let down” response where milk releases into the nipple in response to suckling from the baby
 - A case study (Cowley KC) showed that mental imaging, relaxation, with use of oxytocin nasal spray as appropriate, enabled women with SCI at T4 and above to nurse successfully
- There is a possibility of decreased milk production in injuries above T6 after about 6 weeks
- Autonomic dysreflexia is very rare with breastfeeding and generally is not an issue

References:

Cowley KC. Psychogenic and pharmacologic induction of the let-down reflex can facilitate breastfeeding by tetraplegic women: a report of 3 cases. Arch Phys Med Rehabil 2005 Jun;86(6):1261-4.

Dawood R, Atlanis E, Ribes-Pastor P, Ashworth F. Pregnancy and spinal cord injury. The Obstetrician and Gynaecologist 2014 (16): 99-107.

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